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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,475

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Oleg Grudin

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EXAMINER

PHAN, THIEM D

ART UNIT

PAPER NUMBER

3729

MAIL DATE

DELIVERY MODE

08/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,475	Applicant(s) GRUDIN ET AL.	
	Examiner THIEM PHAN	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 12-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1 and 3-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3729

DETAILED ACTION

Election/Restrictions

1. Applicants' election with traverse of Species I-B (Claims 3-11) filed on 7/07/08 is acknowledged. The traversal is on the grounds that all the Species I-A to E do not have mutually exclusive characteristics as required (MPEP 806.04(f)) as the independent claim1, which is generic claim for the group, is in a highly specialized field of art. This is not found persuasive because the examiner has established a prima facie case, filed on 8/4/05, that the inventions of Species I-V (Claims 2-15) do have mutually exclusive characteristics under MPEP 806.04(f) where “one claim recites limitations which under the disclosure are found in a first species but not in second or other species, while another claim in second species recites the limitations disclosed only for the second species and not the first nor the other; and the mutually exclusive characteristics are patterned similarly in subsequent species”.

In accordance with MPEP § 803, the Examiner has demonstrated that the inventions of Species I-A to E are each distinct as claimed (filed on 6/06/08) and a serious burden would be placed on the examiner. The requirement is still deemed proper and is therefore **made FINAL**.

Claims 2 and 12-49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species or Groups.

Applicants are required to cancel these nonelected Claims (2 & 12-49) or take other appropriate action. An Office Action on the merits of Claims 1 and 3-11 now follows.

Title

Art Unit: 3729

2. The following title is suggested: “A Method for adjusting an output parameter of a circuit”.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. The claimed language “... away from and back towards a starting point,” is confusing and unclear. This language not only is held to be vague and indefinite, the metes and bounds or scope of the claimed subject matter cannot be determined in the disclosure.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-6, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Spraggins et al (US 5,679,275).

Regarding claim 1, as best understood, Spraggins et al teach a method of modifying the characteristics of a circuit, comprising:

(a) providing in a circuit (Fig. 3, 10; col. 3, lines 41-47) a plurality of components including at least one thermally trimmable resistor (20) and at least one other component, said thermally trimmable resistor possessing at least an hysteresis characteristic with respect to a dependence of a temperature coefficient on a resistance as any resistor always having its own hysteresis characteristics, and positioning said at least one thermally trimmable resistor in said circuit such that said output parameter (Col. 2, lines 60-62), depending on the whole circuit impedance, is affected by variations of parameters of said at least one thermally trimmable resistor, whose individual impedance varies and affects the whole circuit impedance;

(b) trimming a resistance value and a temperature coefficient of resistance of said at least one thermally trimmable resistor (20) to independent values to cause a change in said output parameter (Col. 2, lines 60-62), said trimming said temperature coefficient of resistance done by cycling said resistance value away from and back towards a starting point using a leading and trailing edge of the pulse current (Col. 2, lines 32-35), thereby using said hysteresis characteristic of said thermally trimmable resistor with respect to its operational characteristics and voltage drop to known current source (Col. 3, lines 26-31); and

(c) measuring said output parameter to obtain proper set value (Col. 2, lines 62-65).

Regarding claim 3, Spraggins et al teach that the heating cycle comprises a sequence of heat pulses to trim said resistance value in a first direction and a sequence of heat pulses to trim

Art Unit: 3729

said resistance value in an opposite direction, using the leading and trailing edges of the pulse current (Fig. 3, Waving Arrows; Col. 2, lines 32-35).

Regarding claim 4, Spraggins et al teach that the heating cycle trims said resistance value away from and then back to its initial value, due to the leading and trailing edges of the pulse current (Fig. 3, Waving Arrows; Col. 2, lines 32-35).

Regarding claim 5, Spraggins et al teach that the trimming comprises selecting parameters of said heating cycle to determine a direction of trimming and an amount of trimming of said temperature coefficient, such as a pulsed control current (Col. 3, lines 13-17).

Regarding claim 6, Spraggins et al teach the selecting of a first heat pulse of said sequence of heat pulses of said heating cycle to be of given amplitude (Col. 3, lines 20-23) to determine a change in said temperature coefficient.

Regarding claim 8, Spraggins et al teach the applying of a plurality of heating cycles such as series of pulses with different amplitudes, widths and duty cycles (Col. 3, lines 20-23).

Regarding claim 9, Spraggins et al teach that the parameter can be measured at room temperature or during normal operation, and said temperature coefficient of resistance can be measured without changing an ambient temperature of said circuit before applying a succeeding heat pulse (Col. 3, lines 26-31).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

Art Unit: 3729

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spraggins et al.

Regarding claim 10, Spraggins et al teach a method of modifying the characteristics of a circuit including the trimming of thermally trimmable resistor (Fig. 3, 20) for desired values, which reads on applicants' claimed invention; except for having the temperature coefficient measured during a cooling of said component with respect to an arbitrary scale.

It would be obvious to one of ordinary skill in the art at the time the invention was made to have the temperature coefficient measured during a cooling of said component with respect to an arbitrary scale through a meter such as an impedance or ohm meter, which must be properly calibrated and tested, in order to obtain a proper reading value of impedance or resistance of the final product.

Allowable Subject Matter

9. Claims 7 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and to overcome the 112, 2nd paragraph, rejection of claim 1.

Art Unit: 3729

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M & Tu, 6AM - 2PM, and W & Th, 9AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Phan Thiem/

Tim Phan
Examiner
Art Unit 3729

August 14, 2008